

LAYING THE PACIFIC CABLE.

San Francisco, Cal.—(Special).—Within nine months' time the much talked of Pacific cable connecting Hawaii with the United States will have been laid, and before two years have passed away we shall be brought within easy speaking distance of the Philippines. A company, composed of John W. Mackay, Clarence H. Mackay, Edward C. Platt, Albert Beck, George G. Ward, Albert B. Chandler and William W. Cook, has been incorporated to carry out the project.

The cable will start from San Francisco, lead to Honolulu, thence to Guam and the east coast of Luzon. When this stretch of cable, 6,912 miles in length, will have been laid, a telegraphic system encircling the entire globe will be completed. The estimated cost of the Pacific cable is \$10,000,000. The demands of the government from the company will be reduced rates and absolute control over the line in time of war. The stretching of an oceanic cable is a ponderous task.

The cable itself consists, first, of a core which comprises the conductor, made of a strand of copper wires and the insulating covering generally made of gutta percha, but occasionally of India rubber, to prevent the escape of electricity.

Then comes a layer of tanned jute yarn laid over the gutta percha to protect it from the sheathing of steel wires, over which come again jute yarn and a bituminous compound. The sheathing varies in thickness with the depth of the water in which it is laid. The deep sea type has a sheathing of many small steel wires; then through several intermediate types the sheathing wires become gradually larger until finally at the shore end the deep-set sheathed cable is again sheathed with strands, each made up of three steel wires set triangularly. It will be noticed, however, that the core is the same throughout.

The copper wires for the conductor are twisted up together or stranded. They are then passed through the covering machine, by which the gutta percha is squeezed round the conductor in a continuous envelope, touching it throughout. The coil is then served with jute yarns, which are laid spirally round it, forming an elastic, soft bedding for the sheathing wires. These latter, as well as the outer serving and compound, are put on in one machine. The served coil passed through a hollow shaft of a circular skeleton framework of iron, on which are mounted bobbins, filled with steel wire or jute yarn, as the case may be. This framework can be rotated and the cable at the same time drawn along, the wires or yarns are wound spirally round the core. The bituminous compound is applied by the cable being passed under a spout from which the melted compound runs. The finished cable is then coiled in large circular iron tanks, in which it is kept under water.

The rate of manufacture is unusually rapid, being for the deep-sea type more than five nautical miles (a nautical mile, 2,029 yards) per machine in 24 hours; and, as the manufacture is carried on continuously day and night, with ten cable machines in operation all at once, it will be seen that from 50 to 55 nautical miles can be turned out every 24 hours.

The cable ship itself is a vessel of strange interior arrangement, especially designed for the purpose. It is not only a huge storage department, but a big floating workshop as well. In the hold there are three immense iron tanks, similar to the land tanks, at the manufactory, 34 feet in diameter for the storage of the cable, each having a conical core for guiding the cable

when it is being paid out. The space within these cores is utilized to hold fresh water. The capacity of its tanks in the regular cable ship is about 1,400 tons of cable, this being the equivalent of about 100 miles of inshore cable, weighing fourteen tons to the mile, or 700 miles of the deep sea type, weighing about two tons per mile.

The cable tanks are all connected by "ways" or troughs, so that a turner may be made from one tank to another or from any tank to either of the huge paying-out machines. Handling of the cable made necessary by such transfer is usually done by means of a small engine connected to a drum, and all mounted on a truck by which it may be moved about the deck.

As the cable is brought from the tank it passes over an iron sheave, fastened to the framework of the hatchway, thence around another larger, deeply grooved iron sheave, and the friction of the cable at this point acts as a tension. It then passes several times around the giant drums of the great dynamometer, over several pulleys on the deck and out over the sheave of the stern to its resting place at the bottom of the sea.

The dynamometer indicates the amount of strain to which the cable is subject at any moment and also enables the man in charge of the brake-wheel to regulate the strain put on by the brake to suit the varying conditions of laying. After leaving the dynamometer it passes under and over several large retarding wheels before wending its sinuous way into the sea.

When all the available cable has been laid the end is carefully sealed up and having been attached to a rope, is lowered to the bed of the ocean. A buoy is attached to the other end of the rope and is left floating on the surface of the water until the ship can return to port with a new cargo.

On May 6, 189, the United States ship Nero began the survey to locate a route for a cable from the United States across the Pacific to the Philippines.

Along this route an obstacle was encountered in the nature of a submarine abyss, the deepest yet known in the world. The abyss was named the Nero deep, and its depth makes it necessary to deflect the direct route from the Midway Islands to Guam. In this low area the Nero, by means of an extraordinary long sounding wire, was enabled to take two of the deepest casts and also two deepest water temperatures ever recorded. The depths found were 5,160 fathoms and the other 5,269 fathoms. The temperatures found at these points registered 35.9 degrees and 36 degrees Fahrenheit respectively.

Here is a description of the route beginning at Honolulu:

An ocean bed of almost level mud at a general depth of about 2,700 fathoms extends from Honolulu to the Midway Islands on a route a little to the northward of the line of reefs running about west-northwest from the Hawaiian Islands to a point beyond Ocean Island. The plain affords an ideal route for a telegraphic submarine cable.

Beyond the Midway Islands toward Guam is another great level plain at a depth of about 3,200 fathoms.

The remainder of the distance, however, while in general fairly level, is interspersed with reefs and mountain ranges that required much time to explore and avoid.

In fifty years the words and phrases of the English language lexiconized under the letter "A" have increased from 7,000 in number to nearly 60,000. Science and invention requiring new terms are largely responsible.

WAS A GAY OLD BOY.

East Liverpool, O.—(Special).—A local attorney is about to file a damage suit in the common pleas court at Lisbon, which promises to create a big sensation. Mrs. Mary A. Miller, aged 76, is to be the plaintiff in the action, and she proposes to bring Miss Belle Lyons, a maiden woman, aged 74, to account for an alleged alienation of her husband's affections.

All parties concerned in the case live at Calcutta, a country village four miles north of this city. Jacob Miller, the husband of the woman bringing the suit, is a prominent merchant in his home town and is 79 years of age. Previous to turning her case over to her attorney Mrs. Miller applied to Justice David McLane for counsel. She related a sad story of endurance, covering a period of two years, and appealed to him to right the wrong which, she said, is pulling hard at her heart strings.

Mr. and Mrs. Miller have for several years been living in a house owned by Miss Lyons, the latter occupying half the property. According to the wife's narrative, Miss Lyons has winning ways about her which are too much for the age husband to battle against. As a consequence, Mrs. Miller says, he has become fickle and careless.

During her conversation with the magistrate Mrs. Miller said she had given up all hope of setting the existing difficulty until the courts had been appealed to. She said the last time she undertook to expostulate with Mr. Miller, in an effort to point out to him wherein he was doing wrong, he flared up in anger and told her to "go to grass."

"I don't care so much for losing the old man," she said, assuringly, "but to think that he would give me up for a young and giddy girl, who ain't half as good looking as more than I can

understand. She is egging him on because she is mad at me. We are not on speaking terms, but I am told by the neighbors that she makes a terrible fuss over Miller when I am out, and tells him that I am not the right match for him. He is foolish enough to think that she is 'sweet' on him, but I have said all along that she just wants to get him away from me and then give him the shake."

Mrs. Miller alleges that her husband refuses to support her, and says he has been spending his money for rings and candy for Miss Lyons. She packed up her belongings today and came to this city, declaring she would never return. The attorney who has charge of the woman's case says he proposes to bring suit against Miss Lyons for \$10,000. She is wealthy and prominent. Miller is a deacon in a Calcutta church and measures have already been taken to oust him. The community where the aged trio live is much wrought up over the affair.

The Civic federation, whose industrial department is to meet in New York City on December 15 to discuss the relations between capital and labor, has among its members Cardinal Gibbons, Archbishop Ireland, Bishop Potter, Seth Low, Charles Francis Adams and presidents of a number of important manufacturing and transportation companies, Carroll D. Wright, Samuel Gompers, and the international presidents of nearly every trade union in the country.

Trenton, N. J., is another rough place for the cooling lovers. Not long ago the residents of West Street called on the police to take action against strollers, and now any man or woman caught billing and cooing in that section is taken into custody.

THESE MEN STOLE AN OKLAHOMA POSTOFFICE.

Oklahoma City, O. T.—(Special).—One of the strangest cases of alleged fraud developed in the history of the postoffice department has been brought to light through the instrumentality of Postoffice Inspector R. M. Hosford, Wichita, and F. A. Bebee of Oklahoma City. It is a story that is stranger than fiction.

R. F. Burnett was postmaster at Bain, Kay county. He had a regular commission as such from the postoffice department. He conspired with his brother, G. W. Burnett, who lived at Longwood, six miles distant, to get the postoffice at that place. But running country stores at Bain and Longwood, postoffices would help their business.

R. F. Burnett proposed to his brother to erase the initials in his commission and substitute G. W. instead, also to erase the word Bain and insert the word Longwood. It was a unique and daring proposition and the brothers fell in with it. They did the work so cleverly that when G. W. Burnett went to Postmaster G. H. Pellman at Longwood and told him that he had been appointed postmaster to succeed him, Mr. Pellman turned the office over to him without protest. He could not doubt that he had been removed in view of the commission Burnett showed him.

The postoffice was moved over to Burnett's store last June and has continued there ever since. After this bold stroke it was necessary to deceive the postoffice department at Washington. This was also accomplished by G. W. Burnett forging the name of George H. Pellman to all reports and correspondence with the department. The postoffice at Longwood continued to be run in this manner for several months, the department not knowing that Mr. Pellman had ceased to be postmasters.

To complicate matters R. F. Burnett appointed the Longwood usurper assistant postmaster at Bain and the usurper in turn appointed R. F. Burnett assistant postmaster at Longwood. After this they actually swapped postoffices, R. F. going to Longwood and G. W. going to Bain.

When Postmaster Pellman turned over the postoffice at Longwood to Burnett, the fraudulent appointee, he turned over with it all stamps, money orders, supplies and cash on hand. Burnett used these for his own advantage.

The two brothers entered into a conspiracy to defraud on a larger scale. They ordered goods at Kansas City, Memphis and other wholesale centers and when the bills matured they placed money to the amount due in registered letters, sealed and mailed them before witnesses. The envelopes, of course, would be rifled in the offices, and when they reached wholesale establishments in bad shape all that would be in them would be a note stating that the sum due was inclosed. In this way they committed considerable fraud.

At one time the Burnetts became alarmed over their own actions and skipped the country, going to the Cherokee nation, where they remained for several weeks. They soon ventured out again and resumed their offices and their old methods.

While they were absent somebody made complaint against them, and that is what first attracted the attention of the department to their cases and caused the investigation that led to the above facts.

Both men were decoyed into Ponca City, where a confession is said to have been obtained from them after being arrested. The confession is said to be a story of the most weird and wonderful details, containing some extraordinary romances. It is stated how the conspiracy was conceived and executed, how the commission of R. F. Burnett was changed in favor of G. W. Burnett, how freely the old postmaster gave up his office, and other incidents of the conspiracy.

The authorities say that no two of the innumerable postoffice frauds in the history of the department have been exactly alike and that this one is different from any crime heretofore committed. It was, in effect, they say, the theft of an entire postoffice.

FACTS FROM EVERYWHERE.

Nearly one-half of the students at Switzerland's six universities last summer—1,990 out of 4,046—were foreigners.

Sillicus—Why have you never married? Cynicus—I'm a high churchman and I have scruples against divorce.

More than forty guides have been insured free against accidents by the Swiss Alpine club at an annual cost of over 12,000 francs.

One out of every 49 deaths in Minnesota is due to accident or negligence, according to the report of vital statistics for 1894 to 1897 inclusive.

The colored element constitutes in Virginia nearly one-third of all males of voting age, and is composed almost wholly of persons of negro descent.

A giant sequoia in the Mariposa, Cal., grove has been selected to be named William McKinley. It stands between the Washington and Lincoln trees and is estimated to be 3,000 years old.

The consumption of sugar in the United States in 1899 was 2,094,610 tons. Nearly two million of these were imported. California yielded 72,944 tons of beet sugar and Louisiana a most of the rest.

India was once in possession of a steel secret which is now lost. This was inlaying with gold of steel blades in such manner that the strength of the blade was not impaired nor its temper lost.

In England an electric automobile has recently run 94 3-4 miles on one charge. It carried four persons and the average speed was twelve miles an hour. The vehicle weighed 3,900 and the battery 2,200 pounds.

ROOSEVELT KILLED A BEAR.

Theodore Roosevelt has a record as a successful hunter of wild game that is certainly unique among Presidents. If not among professional men generally. His own story of his killing of a grizzly is as thrilling a bit of genuine adventure as you are likely to meet with.

It is told in his interesting volume, "The Wilderness Hunter," published by G. P. Putnam's Sons, and forms a part of his account of a hunting expedition through Idaho in the fall of 1899. The story, as told by President Roosevelt, is as follows:

"At last, as I was thinking of turning toward camp, I stole up to the crest of one of the ridges and looked over into a valley some sixty yards off. Immediately I caught the loom of some large, dark object, and another glance showed me a big grizzly walking off slowly with his head down.

He was quartering to me, and I fired into his flank, the bullet, as I afterward found, ranging forward and piercing one lung. At the shot he uttered a loud, moaning grunt and then plunged forward at a heavy gallop, while I raced obliquely down the hill to cut him off.

After going a few hundred feet he reached a laurel thicket, some thirty yards broad and two or three times as long, which he did not leave. I ran up to the edge and there halted, not liking to venture into the mass of twisted, close-growing stems and glossy foliage.

Moreover, as I halted I heard him utter a peculiar savage kind of whine from the heart of the brush. Accordingly, I began to skirt the edge, standing on tiptoe and gazing earnestly to see if I could not catch a glimpse of his hide.

When I was at the narrowest part of the thicket he suddenly left it directly opposite and then wheeled and

stood broadside to me on the hillside, a little above. He turned his head stiffly toward me; scarlet strings of froth hung from his lips; his eyes burned like embers in the gloom.

I held true, aiming behind the shoulder, and my bullet shattered the point or lower end of his heart, taking out a big nick. Instantly the great bear turned with a roar of fury and challenge, blowing the bloody foam from his mouth, so that I saw the gleam of his white fangs; and then he charged straight at me, crashing and bounding through the laurel bushes so that it was hard to aim.

I waited until he came to a fallen tree, taking him as he topped it with a ball which entered his chest and went through the cavity of his body, but he neither swerved nor flinched, and at the moment I did not know that I had struck him.

He came steadily on, and in another second was almost upon me. I fired for his forehead, but my bullet went low, entering his open mouth, smashing his lower jaw and going into the neck.

I leaped to one side almost as I pulled the trigger, and through the hanging smoke the first thing I saw was his paw as he made a vicious side blow at me.

The rush of the charge carried him past. As he struck he lurched forward, leaving a pool of bright blood where his muzzle hit the ground; but he recovered himself and made two or three jumps onward, while I hurriedly jammed a couple of cartridges into the magazine, my rifle holding only four, all of which I had fired.

Then he tried to pull up, but as he did so his muscles seemed suddenly to give way, his head dropped and he rolled over like a shot rabbit. Each of my first three bullets had inflicted a mortal wound.

THE ROMANCE OF HEPZIBAH.

Charlotte, N. C.—(Special).—The following romantic story is made public regarding the coming marriage of Miss Hepzibah Dye of Rock Hill, S. C., 25 miles from Charlotte:

There is a romance attached to the life of Miss Hepzibah Dye of this city, which has been developing seven or eight years and which is now about to see a blissful climax in her happy marriage to a certain sea captain in Pensacola, Fla. She has never seen her husband-elect, having been introduced to him through the medium of an advertisement he inserted in an Atlanta newspaper many years ago, and which she answered as soon as she saw it. But he has shown a devotion and a tenacity of purpose through these years of correspondence that give every reason to hope that the real end will be as in the story books, "and they lived happily ever afterward."

The bride-to-be will sell out her personal effects and at once go to Pensacola to meet and marry the man she has learned to love through seeing his advertisement, his photograph and his letters. Miss Hepzibah is a member of a good, solid, substantial family of this section and has numerous relatives living near this city. She is a hard working, industrious woman of fine character, and practically all Rock Hill knows, esteems and likes her.

She has always lived at Rock Hill, at the old home place, at Wilson and Black streets, and has lived there alone since the death of her mother about six months ago. She is about 35 years old, dresses well and is good looking. Her brothers at one time owned much property in this section.

The story of her romance is an interesting one in several particulars. Immediately after she had opened correspondence she and the captain exchanged photographs and the usual honeymooned sentences. She told him that she could raise about one thousand

good, solid, honest American dollars, and he replied that he was a sea captain, sailing out of Pensacola, had a good business and could well support a wife. He ended by fervently expressing his passion, urging an immediate marriage.

Miss Hepzibah couldn't, or at least didn't, resist the usual feminine peculiarity of a negative answer. She wrote that she could not think of marrying anyone as long as her father and mother were alive. This seemed to somewhat jar on his devotion, for at about this point the correspondence ceased.

Soon afterward, however, her father died, and about six months ago her mother passed over the river. Miss Hepzibah reopened correspondence and found her sea captain willing to launch forth on the sea of matrimony as soon as she was ready to accompany him. She consented, and he wrote her to sell her property and come to Pensacola—that he was so situated that he could not come here to marry, and that, should he be off on a trip at the time she arrived, he had prepared a place for her in a good family, where she might await his homecoming and the wedding.

It was Miss Hepzibah's intention to follow his instructions right away, selling all the property, both real and personal, but when her sister living in St. Louis heard about it, she consulted a spiritualist friend, who gave this message from Miss Hepzibah's mother in the other world:

"Give Hepzibah my love, and tell her not to sell the home."

So she will reserve the house.

Calvary Methodist Episcopal church, the largest church of that denomination in New York City, raised \$70,000 on last Sunday to clear off the church mortgage. J. S. Huyler, the confectioner, contributed \$10,000 of the amount.

THE SOUTH SEA ISLAND MEN.

Dr. Alfred C. Haddon, the head of the British anthropological expedition to New Guinea, has come to America to deliver lectures. He tells of the queer people who inhabit the islands to the south of the Philippines and their peculiar customs.

The Papuans of New Guinea are very proud of their hair. It is black and woolly, and the men dress it with great care, and decorate it with elegant combs and feathers. As among animals, it is the male Papuan who is decorated.

In Papuan villages young men, gorgeously got up with feather and shell ornaments, strut about like turkey cocks, while the more sober apparelled damsels gaze at them admiringly.

In the Mekeo district the extreme of fashion is reached by the young men by tight lacing. There the youths wear bands drawn about their waists so extremely tight that the flesh exerts out between the circles of the belts in prominent rings, and the chests seem inflated, until they bear the characteristic appearance of pouter pigeons.

Papuan women are much less ornamental than the men, and after marriage their hair is cut off, taking away what little attraction they may have had. The shaven pate is, in most cases the only outward and visible sign of marriage.

The Papuans are an excitable, demonstrative and fairly intelligent people. They are fond of dancing, for

which pastime they array themselves extravagantly. However, the great majority of their dances are of a ceremonial nature, and among some tribes they are held on supremely important occasions, as when a youth is initiated into manhood. Some of the dances are performed by men wearing wonderful masks.

They have magical dances to make food abundant, and to make the dugong come to be harpooned. At these dances masks are worn, such as a crocodile's head combined with a human face, and above it the effigy of a sawfish. Some of the dances are in the nature of harvest festivals, and to carry over the fertility of one season to another.

Important ceremonies are associated with death. Life after death is assured by means of dances performed by men who by gait and actions mimic recently deceased persons. Women and children believe these numbers to be the spirits of beloved relatives and are comforted. Women never participate in the secret dances where masks are employed; some of the dances being too secret for them to even witness. Among one tribe it is considered highly indecorous for men and women to dance together. Indeed, women rarely dance, although in another group of the Papuans boys and girls dance together, the male dancers beating the drums.

On the mainland of British New Guinea homes are almost invariably

built on piles. In the west are immense houses in which many families live, while in the east each separate family group lives in a separate house. Some tribes build their villages in the sea. As in the stone and bronze ages of Europe, thousands of years ago, when the dwellers by the Swiss lakes lived over the water, so today in New Guinea dwellings are built on piles, with rickety platforms and unstable log bridges from one marine house to another.

Papuan women are extremely tidy about their houses, and it is a matter of pride with them to keep the open spaces in front spotlessly clean; to do otherwise were a disgrace.

Certain hill tribes build their houses on narrow ridges of high hills, or dwell in the tree tops, their houses serving as watch towers.

A house in a tree would not seem a very safe refuge, because it would be so easy to cut down the tree and destroy its inhabitants at one fell blow. Until recently the Papuans had only stone implements, and it takes time to fell a tree with stone axes. In addition to this it is contrary to the etiquette of war of these people to cut down a tree house, so they really are houses of refuge. Tree houses are not common, however, because the government of British New Guinea has so pacified the country that the hill and mountain tribes are no longer warlike.

FRILLS OF FASHION.

Stockings matching the shoes and slippers are very fashionable.

A revival is predicted of black velvet coats with collars and cuffs of ermine and sable.

Black net or mousseline de soie over black or white silk is a favorite combination for evening wear.

Buttons are immensely popular and a revival of an old fashion is the use of velvet covered buttons.

Large green onyx buttons set in cut steel are used for trimming some of the smart corduroy fad costumes, particularly in gray and green.

Long fine silver chains are worn again. They must be very fine to meet with fashion's approval and have one single unmet gem of some sort suspended therefrom.

Small brooches of gun metal with turquoise or diamond ornamentation are among some beautiful little pins in red and pink coral.

For evening gowns for young girls the small pompadour brocade and striped silks are charmingly appropriate. The new silks with either fine or coarse weaving show a most brilliant sheen.

Ostrich tips in pale turquoise blue or wild rose pink are included among the dainty ornaments for the hair, as are Louis XVI bows fashioned of tulle and gold tissue and combined with jeweled aigrettes or half wreaths of roses, preferably Banksia or La France.

The one new lace which stands out very prominently among all the various kinds in use is the filet, a Breton specialty, which is sort of embroidery on a foundation of very fine fishnet made of very fine thread, and this has brought square meshed nets of all kinds into fashion.

An effective touch was given an evening gown of deep cream mousseline de soie with incrustations of lace the same tint, by a large choux of black net fastened at the front of the bodice. A swathed girle of soft silk in the new mellow lemon tone completed the gown harmoniously.

The latest thing in umbrella handles is enameled in white and it is the fashionable white frocks which are responsible for this fad. The design may be the head of a swan or a white duck or perhaps an Angora cat with jeweled eyes. This fancy will bring ivory handles into vogue again.

A pretty novelty in jewelry is the flower pendant which is particularly smart, caught in a soft lace scarf. It consists of a gold knob holding two slender gold chains each ending in a flower of enamel. At the back of these are tiny gold hooks to secure them to the corsage some distance apart.

TALK ABOUT WOMEN.

The women college graduates of New York are to have a club house of their own.

Mrs. Maria Ferguson of Los Angeles, Cal., has issued the first Dawson City, Yukon and Alaska directory. The volume contains 900 pages and many valuable mining maps.

Miss Orro Eddelman, a young woman of Cherokee blood, owns and edits the Twin Territories, a thirty-two-page illustrated magazine, whose contributors are residents of Oklahoma and Indian Territory.

Mrs. Stanford has returned to San Francisco after a journey to Egypt, where she purchased for the Stanford museum a remarkable private collection of Egyptian antiquities, treasured and supplemented during thirty-five years by a foreign resident of Cairo.

Miss Braddon, the English novelist, positively refuses to be photographed and only one picture of this prolific writer is known to be in existence. For some time past she has been content with writing one book a year, but in her younger days her annual output was at least two long novels.

Mrs. Maud Barker Cobb, who is now filling the office of postmaster of the Georgia house of representatives, is a candidate for the appointment as assistant state librarian and presents strong letters from judges, lawyers and other prominent men in all parts of the state. It is said that when she sought the postmastership last year she had such an array of influential endorsements as had never before been seen in Georgia.